Holiday Gift Suggestions

GAMES

Airborne $22.95
A warfare game complete with helecopter engines, whizzing jets, hissing projectiles and other explosive sounds.

Flight Simulator $26.00
You're the man at the controls in this intriguingly thrilling game for learned pilots or daredevil beginners.

Sargon III $32.00
The ultimate chess software for players of all skills and interests. It includes a program for learning chess.

Hitchiker's Guide to the Galaxy $25.95
Text game for people who want to live out the fantasies of the popular science fiction book.

Lode Runner $25.95
As a highly trained galactic commando, you will solve perplexing puzzles, and battle evil with amazing heroics.

MacAttack $22.00
Arcade game with 3 dimensional animation and simultaneous sound

PERIPHERALS

Carrying Case $62.00
Backpack/Carrying case for the Mac and Mac+

Douglas Carrying Case $53.00
Carrying case for the Macintosh with handles and shoulder strap

Microsoft Works

The new application designed for the new Macintosh user.

By Jeffrey Herman

Microsoft, the Washington state based company that has produced such powerful Macintosh software as MS Word, MS File, Chart, and Excel has come out with an integrated application called Microsoft Works. An integrated application is one in which several applications (in this case word processing, data base, spreadsheet, and communications) are combined on one disk, allowing each of the parts to work together.

When buying a Macintosh, many people are unsure of what software they should purchase to get the most productivity from their computer. Almost everyone will buy a word-processing application, but the new Macintosh user may not have the skills to discriminate between the growing number of word processing applications is best for them. Also, they may be unfamiliar with the power and purpose of a spreadsheet, data base, or communications package.

If these four applications were purchased individually they could easily cost over $500. Microsoft's MS Works includes all of these applications and costs around $150. MS Works allows the new user an affordable way to experiment with these powerful tools and find out which ones are the most helpful in working with the Macintosh.

Word Processing
As noted, MS Works is divided into four applications. Let's take a look at each

Word application individually, beginning with the word processor. The word processing application has many of the editing, searching, and formatting features

Texas Union

MicroCenter

Disk Cleaning Kit   **$12.95**
Allsop Micro Cleaning Kit gives longer life and higher
perfomance to computerdisk drives, monitors, keyboards,
and printers. The case becomes a diskfile/10 storage case
for 3 1/2" floppy disks.

Disk File 10 & 40   **$3.95 & $8.95**
These practical, portable, storage boxes protect and
organize your disks. They come in a compact case with
built-in dividers.

ImageWriter Printer Bag   **$37.00**
Use this zip bag with a convenient handle and shoulder
strap to carry your printer from place to place.

Macintosh Dust Cover   **$18.00**
Protect your Mac, Mouse, Printer and Keyboard in khaki
colored washable fabric.

Colorfull Printer Ribbons/Mac   **$7.00**
Choose between red, green, blue, brown, yellow, and
purple ribbons. Great colors to make your own Holiday
cards.

(MS Works cont. from pg. 1)
found in the veteran word processing applications.
However, its graphic capabilities go far beyond other word
processors. Unlike MacWrite or MS Word, MS Works
allows you to put graphics and text on the same line.
Thus, you can use this feature to insert graphics directly
into a line of text.

In addition, the word processor has other graphics
capabilities, including the Draw command which lets you
insert line, circle, or square patterns into your document.
This provides several ways to highlight a certain section
of text to inform your reader of the most important
aspects of your presentation. These powerful graphics
capabilities have convinced many people to choose MS
Works as their main word processor.

Spreadsheet

Spread MS Works also includes a spreadsheet
application. A spreadsheet is a grid with
columns and rows, very similar in
appearance and purpose to an accountant's spreadsheet.
Just like an accountant's spreadsheet, an electronic
spreadsheet has a "cell" at the intersection of each row and
column. By entering numbers (and if desired, explanatory
text) into the cells you can use a spreadsheet to organize
information in a logical form.

The main advantage an electronic spreadsheet has over
an accountant's manual spreadsheet is that the computer
can process numbers for you automatically. This provides
access to the real power of a spreadsheet, the

ability to run "what if" scenarios. For instance, if your
spreadsheet contained your budget for the coming year,
you might want to see how a decrease in sales would
affect overall net income. Changing your sales
projections would result in the automatic recalculation of
the numeric values in your spreadsheet, providing you
with the information needed to do your job more
effectively.

The result of running a "what if" scenario can also be
viewed in the charts that you can produce with MS
Works. These charts, also part of the spreadsheet
application, enable you to see your information in graphic
form. For instance, if you were making a presentation on
the state of the micro-computer industry, a pie chart could
be produced to show which companies held which
percentage of the market.

Overall, MS Works has a very adequate spreadsheet
and chart application. However, it does not allow you to
create macros.

Data Base

Data The third application in MS Works that
we will look at is the data base. A data base
is any organized collection of related
information. Although you may not be familiar with data
base terminology, most of you use data bases everyday.
For example, a student directory is a data base, so when
you use the directory to find someone's phone number,
you are accessing a data base.

Let's use the example of the student directory to
become more familiar with data base terms. In the
directory, each student has an entry. In a data base, this
entry is called a record. Each entry in the student directory
is broken down into items such as name, address, city, and
zip code. In a data base, these items are called fields.

An electronic data base has several advantages over
the printed student directory. If you had access to the
student directory in electronic data base form instead of
book form, you could perform a number of powerful
operations on the information.

With an electronic data base, you can add, delete,
inquire or modify records easily. Thus, your directory
would always be up to date. Also, the entries, or records,
in the directory could be viewed under a number of
different criteria. For instance, you might want the
records shown in alphabetical order by last name or by the
city in which each person lives. A third advantage is the
ability to search, or query, the data base, for certain
records. For instance, the data base could provide you
with the names of all the students who live in a certain
zip code or are from a certain home town.

The data base in MS Works has all these capabilities,
plus a number of special features. These features include
the ability to create customized reports. Also, you could

merge the information in your data base with a word processing document to produce form letters.

Communications

The final application included in MS Works is communications. To use this feature you would need a modem and a telephone line. There are a number of time-saving, fun and/or educational things you can do with the MS Works communications application.

You could dial up one of the multitude of electronic bulletin boards around Austin. Once connected you could send and receive mail, or read about a variety of subjects on the boards. A second useful purpose of a communications package is to connect to a main-frame computer, like the VAX at UT. Once connected you could do your computer homework from home. By sending Macintosh word-processing text files to your computer directory or sending files in your computer directory to your Macintosh you could save costly main frame connect time. Finally, MS Works allows you to connect to any of the plenteous national and information service bulletin boards such as CompuServe or Dow Jones News/Retrieval. These bulletin boards can provide you with a multitude of information, from the latest in stock prices to an on-line encyclopedia.

Summary

In addition to making MS Works powerful and integrated, Microsoft also made it easy to use. In addition to the standard Macintosh point and click interface, helpful documentation is provided in the applications and self-paced tutorials which are contained in the manuals.

If you find at some point that you need a specific application with more powerful features than those found in MS Works, you can easily convert your MS Works files into the format used in the other Microsoft applications (MS Word for word-processing, Excel for spreadsheets and MS File for data bases).

MS Works is an attractive application at an equally attractive price. Whether you are a newcomer to the world of Macintosh or an old-timer, MS Works may be the tool to help you use your Macintosh more effectively. Every software user should give MS Works a serious look.

Lightspeed Pascal

by Thomas May

Lightspeed Pascal from Think Technologies is an excellent programing tool. It has the features and advantages of an interpreter with the ability to create stand alone applications.

Lightspeed Pascal is very similar to MacPascal in many respects (it was written by the same company). The program editing is identical to MacPascal, having the reserved words automatically bold face. Also, using the *INSTANT* and *OBSERVE* debugging windows are the same, along with the *STOPS* function. For anyone not familiar with these debugging features of MacPascal, they are very powerful. The *INSTANT* window allows one to

add additional lines of Pascal code, and the *OBSERVE* window will display the value of any variable, all while a program is running! In addition, the two standard output windows of MacPascal (*TEXT* and *DRAWING* windows) are available. Lightspeed Pascal conforms to the Lisa Pascal standard as much as is feasible, while still being able to run MacPascal programs with little or no modification.

Besides having the features of MacPascal, Lightspeed Pascal allows full use of the Macintosh toolbox routines like menus, dialogs, windows, and controls. It is fast at interpreting and linking multiple file programs. Plus, the debugging features are supurb. The program is very large (264K), and requires at least 512K of memory to run. The MicroCenter sells Lightspeed Pascal for $75.00.

Microsoft's New Word 3.0

By Brian Kennedy

Word processors. There are hundreds available for the IBM. Some are very simple, but are not much more than screen editors. Some are very powerful, but are just as user-unfriendly. Some are very user-friendly with multiple levels of help functions, but are clumsy to use when you don't need help. Most are, however, rather expensive.

With the announcement of Word 3.0, Microsoft has made some strides towards achieving a powerful word processor with extensive help facilities that remain out of the way when you don't want them. Best of all, through the MicroCenter it is one-half to one-fifth the cost of other word processors.

Word 3.0 is structured as a menu-driven program with help facilities at every level. Microsoft further extended the help facilities by making it possible, at any time, to drop into the extensive tutorial and see the command being used. However, many of the most common commands are readily accessible with a single keystroke, allowing the proficient user to bypass the menu.

Microsoft, in this new version, has added many new features making it comparable to some of the most sophisticated word processors. They corrected most of the deficiencies of old Word by adding table of contents and index generation, automatic numbering, column operations, and side-by-side paragraphs. They also added a complete outlining facility, the ability to perform spreadsheet-like math operations on columns, and a fairly complete sorting facility. Finally, they added an excellent tutorial. Also menu-driven, the tutorial is exhaustive and understandable, but not annoyingly slow to someone experienced with word processors. Even better, each part of the tutorial is available on-line while you are working on a document.

Users of old Word will note that Microsoft has corrected some of following weaknesses of old Word. "Widow and Orphan" control can now be turned off. Long footnotes can be continued on the following page. The tab facility now works correctly regardless of the size of the font. The preset tabs can be set by the user. Word

3.0 can use enhanced graphics and can use the third bin of a sheet feeder. Word 3.0 is capable of automatically setting line spacing to compensate for different font sizes. Date and Time can be prestored in the glossary which can now be printed.

Word 3.0 is not the perfect word processor, nor is it even the best. Word's cursor movement and text selection techniques aren't as quick or as easy as others. Although Word does have a large number of features, many of them are limited or difficult to use. For example, Word's facility for merging data with standard forms is not as easy to use, not as user-friendly, and not as versatile as some other word processors. Also, the Word program itself is a little slower than some, yet faster than others.

The best feature that sets Word 3.0 apart from the crowd, is its price. A word processor that is better than Word 3.0, costs two, three, or even five times as much. It is available for under $100, a price that even a modest college budget can afford. For the price, Word 3.0 may be the best word processor available.

For Your Information

Communicating With the Outside World

by Marta Stewart
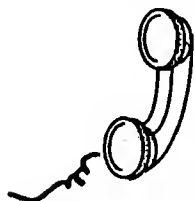
The first question that you must ask yourself when buying a modem (or making any similar investment) is whether or not you are going to get enough use out of it to justify the cost. Modems are powerful tools that can increase the capabilities of your home computer many times over. For students who require 24-hour access to the University's mainframe, the modem can prove invaluable. Besides there always being a "free terminal", one can work while surrounded by the comforts of home.

Modems are also handy for accessing computer news, events, tips and public domain software displayed by the local area bulletin boards. A modem will provide the facility for electronic mail and electronic shopping. In addition, the communications offered by a modem can connect one to the Dow Jones News/Retrieval, CompuServe, and other information services. However, the cost of these information services can run quite high. This is important to keep in mind when determining how much use you're going to get out of your modem.

Once you have decided that you are going to buy a modem, there are a few things you should know. Due to FCC regulations, you will not be able to: (a) connect your modem to a party line, (b) connect your modem to a coin-operated telephone, (c) replace your telephone with your modem (there must be at least one telephone connected to your telephone line). You will also be required to contact the telephone company before connecting your modem. They will ask for your phone number, your FCC Registration Number, and Ringer Equivalence Number. (You will receive the registration

and ringer equivalence number in the modem package.)

The MicroCenter offers three different modems: the Volksmodem, the Apple Personal Modem, and the Bizcomp Intellimodem. All three include the following features:

(1) Hayes-compatiblility,
(2) RS-232 compatibility,
(3) Auto-dial, Auto-Answer,
(4) Low Speed: 0-300 baud
    High Speed: 1200 baud,
(5) All necessary cables

All three will require modular phone plugs. (If your phone has the older 4-prong jacks, then you will need to purchase a RJ11-to-4 prong adapter.) All will require communications software in order to run. Among the software communications packages available are: MacTerminal, VersaTerm, Red Ryder, and Kermit. Kermit software (utilizing the KERMIT error-checking protocol) is available free at Taylor Hall 103. For more information on Kermit, see Jody Hunt's article on Kermit.

The Volksmodem by Anchor Automation is your basic personal modem. Since it uses the standard Hayes Smartmodem command structure, it is compatible with a wide variety of microcomputer communications programs. It doesn't include a lot of flashy lights and such, but it is a good, reliable modem. The cost of a Volksmodem at the MicroCenter is $150.00 and Anchor Automation offers a 5-year limited warranty.

The Apple Personal Modem is unique in that it can be mounted on a wall socket (or power strip). This can be very helpful when deskspace is scarce. Included in the package are some special offers from major information services, book and software publishers, and banks. Unlike the Volksmodem, the Apple Personal Modem comes with a speaker which indicates the progress of your connection request. The MicroCenter sells the Apple Personal Modem for $285.00 and it comes with a 90 day warranty. You may extend this warranty an extra year by purchasing AppleCare for the modem. The MicroCenter will service only Apple Personal Modems. The other modems will have to be serviced through their respective manufacturers.

The Bizcomp, at $299.00, is the MicroCenter's top of the line modem. This modem comes equipped with eight status lights, indicating: high speed, automatic answer enabled, carrier signal detection, line off hook, receiving data, sending data, terminal ready, and modem ready. The Intellimodem will also analyze the quality of your telephone line connection. A Line Quality Bar Graph Display provides information on the error rate you can expect from your current connection.

Like the Apple Personal Modem, a speaker is provided for clear audio information. However, a unique use is made of the speaker with the Intellimodem. On this speaker, you may receive a voice message from someone at the other end of your connection. This feature comes into play in the Voice Insert mode. Using voice insert

mode, which requires an Intellimodem on each end, you can transfer data files, switch to voice to discuss the results, and then transfer additional information just by lifting and replacing the telephone handset. Voice Insert mode is one of Intellimodem's four modes of operation. The others include Command Mode, Data Mode, and Link Hold Mode. (Business Computer Corporation covers the Intellimodem with a two year limited warranty.)

So, choose the modem that best suits your needs and open up a new dimension of power for your computer.

Kermit*

by Jody Hunt
It happens all the time. You've almost got the last glitch out of your incredibly elegant solution to the latest CS331.5z assignment, the lab is about to close, the program is due by midnite and it's been taking thirty minutes to compile. Relax, with Kermit the nightmare is over.

Kermit is a file transfer protocol developed at Columbia University by Frank Da Cruz and Bill Catchings in response to a growing computing demand. The school could not afford the on-line storage needed for all its new users. So Da Cruz and Catchings decided to make student storage the users' responsibility and come up with some way of transferring files as needed.

Kermit had to support a common subset of file characteristics and had to have standards for cabling, buffering and line handling. Thus Kermit became an asynchronous, half-duplex protocol that transmits small bursts (called packets) of ASCII or binary code. Packets are verified by use of a check-sum and a positive response from the receiving system is required before the next packet can be sent thus ensuring data integrity. Kermit is not a portable program but a portable protocol.

Kermit includes a built-in terminal emulator. When transferring files, both systems run the program with the user controlling the host mainframe's actions. To send a file, you type "Receive" at the host's Kermit prompt; it will sit there and wait. You then escape from your local Kermit's terminal mode and at your local Kermit prompt type "Send <filename>". When the transfer is completed you go back into terminal mode and continue, the host will resume responding. Typing "Send <filename>" at the host's Kermit prompt will begin sending a file to your micro after a certain delay time has elapsed. This gives you time to escape to local mode and type "Receive <filename>". All variables such as delay time, packet length and data-mode (character set) have default values but can be set according to preference (data-mode must be set to ASCII on the CDC Cyber - it defaults to its own character set). By grace of these defaults, not much more than a perusal of the documentation is required to begin using the program.

What all these features come down to is freedom for

users and better utilization of the school's resources. Not exploiting the capabilities of available micros is a criminal waste of talent. Users with micros who access UT systems through Micom no longer have to eat up CPU time with relatively mundane tasks. Instead of learning the idiosyncracies of a new mainframe editor they can edit their programs, dissertations or letters with their micros' text editors (which are probably more sophisticated anyway) and then send them to the mainframe. If they own suitable compilers, students can even get programs written and debugged before transferring them to the mainframe (assuming they write portable code!). And individuals who don't have micros benefit because the CPU can give them a bigger slice of its time pie; anyone who has waited thirty minutes for a 500 line program to compile would surely welcome that news.

Kermit is alive and well at UT. Joel Cooper at the UT MicroComputer Lab says it is supported by all the Vaxes, the CDC Cyber, the DEC 20, and the IBM 3081. If you're not sure whether the system you're working on has it, type the word "Kermit" at the operating system prompt and see what happens. To get Kermit for your micro, go to Taylor 103 (which is a synonym for the MicroComputer Lab). They have it for many popular micros. Just ask at the lab. The proctor at the lab will give you a diskette which has the program and documentation files on it. You copy the program on your own disk and return it. You won't have to pay anything because Kermit is a gift to the American computing domain. If you're still not convinced, the MicroComputer Lab has issued a short publication on Kermit which can be found on the bulletin board outside Room 111 in Taylor Hall (just down from the Lab). It contains more information on the program. But why not just make a copy of the program in the lab, read the documentation and experience the luxury of dual computing, at home AND at school?


A Little Mac Troubleshooting

by Jared Lackman
Whether working with an application or programming in a language, whether printing or saving, whether you are an experienced user or you just took your magic machine out of the box, once in a while you will come across a problem that leads you to believe something is wrong with your Macintosh. You panic, and in a frenzied state rush to the MicroCenter, violating every traffic law and running over a helpless UTPD officer in the process, only to learn that nothing was ever wrong with your machine. What could you have done to prevent such a magnanimous mishap? By following a few simple rules of thumb, you can save yourself and the MicroCenter a lot of wasted time.

Printer Problems:
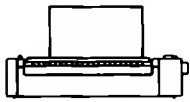
You have finished a document and wish to print to your Imagewriter (I or II) or your Laserwriter. You invoke the print command, the computer acts like it is printing, but nothing happens. What do you do?

1.) Check to make sure your cables between the Macintosh and the printer are tight at both ends. Often the only problem is in this connection.

2.) Under the Apple menu, run chooser (called choose printer in older systems) and make sure you have the proper printer icon and port selected. When selecting the Laserwriter, verify that the name of the printer is also selected.

3.) Check the startup disk to see that there is sufficient disk space to print. The reason is that the Mac makes print files every time you try to print. If there is not enough room, obviously you cannot print. Generally, for a new print driver, you need only about 30 to 40K. For an older print driver, i.e. before version 2.0, you need space on the disk for twice the size of the file you wish to print. For instance, when trying to print a 60K file, you would need at least 120K of space on your startup disk. For this reason, it is obviously to your benefit to update your system to version 2.0 for 128K Macs and 3.2 for 512KE's or for a Mac Plus.

4.) If you still have problems printing after trying 1., 2., and 3., do a Shut Down on your Mac, remove all disks, and turn the power off. Unplug the machine and remove the battery from the back panel. Let it sit for about five minutes. Then reinsert the battery, noting the correct insertion position. The problem stemming from the battery is this: sometimes codes are saved by the battery which alter the buad rate of information sent to the printer. If these are faulty (i.e. the wrong rates) you will not be able to print. After reinsertion of the battery, your problem should be corrected.

Computer Problems:

1.) You insert a disk and get a Sad Mac with 0F0064. Do not panic . This only means that the disk has no boot blocks, i.e. no system folder. Simply boot the machine with another disk which has a system and you will be able to read any files from the other disk, either in your external drive or by ejecting the system disk and inserting the original.

2.) You get a Sad Mac with 0F000D. This means something is wrong with your reset switch. Either you have installed it improperly or it is jammed. Simply turn off your machine, remove the switch, and insert it properly.

3.) Your new ROM machine (512E or Mac Plus) seems to be making chirping sounds. Nothing is wrong.

The new drives make these noises when reading and writing.

For any other problems, consult your reference manuals or call the MicroCenter Hotline. The number is are 471-6227. Chances are, between our brainpower and yours, we can solve your problems and promote happy computing.

MacProject 1.1 Update
Bring in the original master disk to the MicroCenter
Enhancements to MacProject 1.1 include:
-Guided Tour for use with Macintosh Plus
-System 3.2 and Finder 5.3
-MacProject calendar range now defaults to 1986-1987
-Pictures greater than 32K may be copied onto the clipboard
-Dates around task box print properly using any LaserWriter driver

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Error Free Print Merging with MS Word
by Ying T. Hung

When you have a form letter and want to print out copies with only minor differences the 'print merge' facility in MS Word is the tool to use.

Occasionally annoyingly obscure error messages crop up in the process of printing out merge documents.

Here are some common errors that occur and ways to avoid and correct them.

"Data record too long (or short)"

This message tends to pop up often. It happens when MS word sees a record with too many or two few fields. In this case check to see that there is a one to one correspondence between the fields in the *header* record and the fields in the data *records*, making sure that each field is separated by a comma. To put comma's in a field, the entire field has to be surrounded by quotation marks. For example a field consisting of a city and state name might look like: "Austin, Texas".

It is easy to forget to enter the closing quotation mark in which case Word will consider everything from the beginning quotation mark to the next quotation mark as one field.

"Not a Valid Word Document"

This error occurs when the datafile name in the DATA instruction does not correspond exactly to the file name of the merge document. For example the instruction «DATA jobdata» will cause an error with a merge document called "job data" because of the extra space between "job" and "data".

Correct page numbering using INCLUDE instructions.

If you are using INCLUDE instructions to insert

other documents into the main document and you want the auto page numbering option to work correctly then you should make sure that you have no division breaks in any of the sub-files that you include.

Easing Record Entry

When creating merge documents with Word it is easy to miss entering fields in a record. If you have Microsoft File it can be used to ease the task of data entry for the records. You will still need to enter the header record. The data records entered by File should be saved using the "Save Records As" command, and the "Text(Microsoft Print Merge)" option should be selected. Since the Datafile window shows data in clearly defined columns, using MS File should greatly facilitate entering records for print merging.

For prices and availability, call
the MicroCenter Hotline
471-6227

System 3.2 for the Mac.

by Thierry Hsu

Who wants an update? Those of you "random bits" out there with at least 512k of RAM should update each of their start-up and application disks to the new system version 3.2. Macintosh 128k owners, stick with your system 2.0, Finder 4.1, and Imagewriter 1.0.

What does this new system contain?

System Folder:

System (v 3.2)
Finder (v 5.3)
Harddisk 20 (v 1-1)
Font DA Mover (v 3.2)
Scrapbook file
Clipboard File

Utilities Folder:

Installer (v 2.2)
Installer Scripts:
External Drive (v 1.0)
MacPlus Update (v 1.1)

In the new system a major part of what is seen on the screen has changed, ie, how files get to the disk and how they are handled on the disk. For example, when using the open menu, you are given a list of files and folders. If you should open a folder then the list of files and folders that appear, will pertain to the folder you just opened.

There are several advantages to the new system in comparison to the 2.0 system. The new system (3.0 or above) is somewhat faster. Although not always noticeable to you and me, it allows the Finder to locate files faster. Also, the number of documents is no longer restricted to 127, because each folder can have 127 files or other folders in it.

Files and folders in the directory may have the same names, but you must remember at what level in the directory you are working so that your data (depending upon what application your in) will not be saved to the first level accidently. If you have a cluttered Directory, going back and finding the data you saved to a level you don't remember could be time consuming. It's always good practice when saving, to check the Save As dialogue box to select the appropriate level in which to save your data.

So if you have a 512k or higher, you can come by the MicroCenter, and we will give you a system update.

Happy Holidays

The Tx. Union MicroCenter will close for the Holidays Tuesday, Dec. 23, 1986. We will reopen on Monday, Jan. 5, 1987 at 11:00am.

Store Hours: Jan. 5 thru 9, 11:00 - 3:00
Starting Jan. 12, 11:00 - 6:00